



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,819	12/12/2003	Jani Moilanen	59643.00369	8837

32294 7590 05/05/2006

SQUIRE, SANDERS & DEMPSEY L.L.P.
14TH FLOOR
8000 TOWERS CRESCENT
TYSONS CORNER, VA 22182

EXAMINER

DOAN, KIET M

ART UNIT PAPER NUMBER

2617

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/733,819

Applicant(s)

MOILANEN, JANI

Examiner

Kiet Doan

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

Claim 19 is rejected under 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Regarding claim 19, the claimed invention is directed to non-statutory subject matter. In claim 19, the phrases "A computer program" are not physical "things" and neither computer components nor statutory process, as they are not "acts" being perform. Such claimed "A computer program " do not define any structural and functional.

Examiners suggest "A computer program" change to A computer readable medium--

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Willrett (Patent No. 6,430,397) in view of Sugiura et al. (Patent No. 6,140,964).

Consider **claim 1**. Willrett teaches a method of compiling a list of usable neighbour location measurement units in a mobile communications network comprising

Art Unit: 2617

a plurality of transmitters with a plurality of location measurement units, the method comprising:

(a) receiving a signal from one of said transmitters at each of a set of said location measurement units and time stamping the signal with the arrival time at each location measurement unit (Abstract, C1, L54-67, C2, L1-16 teach measuring the transmission which mobile station received signal from BTS that recorded and time stamps). Willrett teaches the limitation of claim as discuss **but silent on**

(b) determining from the arrival time at each location measurement unit and its distance from the transmitting transmitter the transmission time;

(c) comparing the transmission times determined for each of the location measurement units and placing on the list only those location measurement units whose transmission times fall in a predetermined range of one another.

In an analogous art, Sugiura teaches "Wireless communication system and method and system for detection of position of radio mobile station". Further, **Sugiura teaches**

(b) determining from the arrival time at each location measurement unit and its distance from the transmitting transmitter the transmission time;

(c) comparing the transmission times determined for each of the location measurement units and placing on the list only those location measurement units whose transmission times fall in a predetermined range of one another (C4, L1-54, C10, L10-50, C25, L35-67, C26, L1-15 teach mobile station measuring the signal strength from

plurality base station and the control station determine the position/location of mobile station, stored and compare location/position information).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Willrett and Sugiura system, such that compiling a list of usable neighbour location measurement units in a mobile communications and a plurality of transmitters with a plurality of location measurement units receiving a signal with time stamps, transmission time, comparing and placing on the list only those location measurement units whose transmission times fall in a predetermined range of one another to provide means for knowing the accurate location/position of mobile station.

Consider **claim 2**. Willrett and Sugiura teach a method according to claim 1, wherein steps (a) to (c) are carried out for each transmitter (Willrett teaches step (a) and Sugiura teaches steps (b) and (c) as described above).

Consider **claim 3**. Sugiura teaches a method according to claim 2, when carried out for a predetermined sequence of transmitters at predetermined time intervals (C6, L26-45)

Consider **claims 4**. Sugiura teaches a method according to claim 2, when carried out using a computer program executed on a processor (C25- 67, C26, L1-15 teach the mobile station equipped as notebook size personal communication which can carried

out using a computer program executed on a processor).

Consider **claim 5**. Sugiura teaches a method according to claim 2, when carried out at a serving location measurement centre in the network (C14, L1-54, Fig.2 showing the serving location measurement centre in the network).

Consider **claim 6**. Willrett teaches a method according to claim 1, wherein said time stamping is carried out using a global clock (C2, L16-41).

Consider **claims 7 and 14**. Sugiura teaches a method according to claim 1, which comprises the step of identifying one of said set of location measurement units as a target location measurement unit associated with said transmitter;

comparing the transmission times for the remaining ones of the set of location measurement units with the transmission time for the target location measurement unit;

and only placing the target location measurement unit on the list if its transmission time falls in said predetermined range (C10, L10-50, C25, L35-67, C26, L1-15 teach the location information stored means as placing the target location measurement unit on the list and the parameter data means as predetermined range).

Consider **claims 8 and 15**. Sugiura teaches a method according to claim 1, wherein each transmitter is associated with a base station (Fig.2, Illustrate the base station No.202-204 and described)

Consider **claim 9**. Sugiura teaches a method according to claim 1, comprising the step of checking coordinates of a transmitter using the transmission times (C16, L26-42).

Consider **claims 10 and 16**. Sugiura teaches a method according to claim 7, wherein said target location measurement is identified as the location measurement unit physically located at said transmitter (C14, L9-53).

Consider **claim 11**. Sugiura teaches a serving measurement location centre in a mobile communications network having a plurality of transmitters with a plurality of location measurement units (Fig.2, Illustrate plurality of BTS means as plurality of transmitters with a plurality of location measurement units) the centre comprising:

- a processor arranged to receive from each of a set of the location measurement units receiving a signal from one of the transmitters a transmission time calculated at the respective measurement units;

- a store holding a list of useful location measurement units;

- said processor being programmed to compare the transmission times determined at each of the location measurement units and to place on the list only the location measurement units whose determined transmission times fall in a predetermined range of one another (C4, L1-54, C10, L10-50, C25, L35-67, C26, L1-15 teach mobile station contain calculation section for calculated transmission time and storage section for store

holding a list of useful location measurement and parameter data means as predetermined range).

Consider **claim 12**. Sugiura teaches a serving measurement location centre according to claim 11, wherein the processor is arranged to receive a signal from each of the transmitters (C26, L1-15).

Consider **claim 13**. Sugiura teaches a serving measurement location centre according to claim 12, wherein the processor is arranged to receive a signal from a predetermined sequence of transmitters at predetermined time intervals (C25, L42-67).

Consider **claim 17**. Sugiura teaches a serving measurement location centre according to claim 11, comprising a data store holding data defining the distances of each of the location measurement units from said transmitter (C4, L52-67).

Consider **claim 18**. Sugiura teaches a serving measurement location centre according to claim 17, which comprises means for calculating said transmission times based on said distance data (C9, L35-54).

Consider **claim 19**. Sugiura teaches a computer program product comprising program code means which when executed on a processor cause the processor to receive from each of a set of location measurement units associated with the base

Art Unit: 2617

stations a transmission time calculated at the respective location measurement unit, and to further cause the processor to compare the transmission times determined at each of the location measurement units and to place on a list of usable neighbour location measurement units only those whose transmission times fall in a predetermined range of one another (C4, L1-54, C10, L10-50, C25, L35-67, C26, L1-15 teach the mobile station equipped with interface for communication such as computer wherein associated with the base stations).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 571-272-7863.

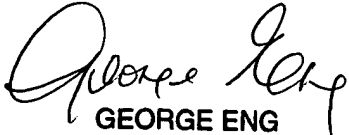
The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).


Kiet Doan
Patent Examiner


GEORGE ENG
SUPERVISORY PATENT EXAMINER